

L. Number	Hits	Search Text	DB	Time stamp
1	380	216/17.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 10:27
2	93	216/17.ccls. and laser	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 10:27
3	6	216/17.ccls. and (laser same alignment)	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 10:30
4	6	216/17.ccls. and (laser same mark)	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 10:30
5	5	(216/17.ccls. and (laser same mark)) not (216/17.ccls. and (laser same alignment))	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 10:59
6	3430	216/13-21.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 10:59
7	1246	216/51.ccls. or 216/52.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 11:00
8	1215	216/100.ccls. or 216/105.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 11:00
10	1407	219/121.69.ccls. or 219/121.71.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 11:00
11	398	29/847.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 11:00
21	6928	216/13-21.ccls. or (216/51.ccls. or 216/52.ccls.) or (216/100.ccls. or 216/105.ccls. ) or (219/121.69.ccls. or 219/121.71.ccls.) or 29/847.ccls.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 11:10
22	337535	laser.ab.	USPAT; US-PGPUB; EPO, JPO, DERWENT; IBM_TDB	2002/10/01 11:10

23	220134	etch\$4.ab.	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:12
24	1800744	(alignment or mark or slit or pin or edge).ab.	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:14
25	1108	laser.ab. and etch\$4.ab. and ((alignment or mark or slit or pin or edge).ab.)	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:14
26	59505	148/\$.ccls.	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:16
27	16	(laser.ab. and etch\$4.ab. and ((alignment or mark or slit or pin or edge).ab.)) and (216/13-21.ccls. or (216/51.ccls. or 216/52.ccls.) or (216/100.ccls. or 216/105.ccls. ) or (219/121.69.ccls. or 219/121.71.ccls.) or 29/847.ccls.)	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:28
28	129	148/dig.105.ccls.	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:28
29	12	((alignment or mark or slit or pin or edge).ab.) and 148/dig.105.ccls.	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:46
30	8	(219/121.69.ccls. or 219/121.71.ccls.) and (alignment same etch\$4 same laser same (metal\$3 or conduct\$4 or trace))	USPAT; US-PGPUB; EPO, JPO; DERWENT; IBM_TDB	2002/10/01 11:47

CLIPPEDIMAGE= JP404186731A

PAT-NO: JP404186731A

DOCUMENT-IDENTIFIER: JP 04186731 A

TITLE: CIRCUIT BOARD WITH TERMINAL FOR MOUNTING CIRCUIT PARTS AND  
MANUFACTURE  
THEREOF

PUBN-DATE: July 3, 1992

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APPL-DATE: November 20, 1990

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US-CL-CURRENT: 216/17

ABSTRACT:

PURPOSE: To prevent connection failure when mounting circuit parts by cladding and forming a metal layer with an improved corrosion property on a surface of a circuit wiring pattern and then forming a hole for continuity reaching the circuit wiring pattern by emitting excimer laser from an opposite side.

CONSTITUTION: A metal mask 3 has a hole 4 at a position where a circuit wiring pattern 2 is positioned and at the same time a groove hole for separation 5 is provided along an outer shape of a product. A metal layer 6 with an improved corrosion resistance is formed on a surface of the circuit wiring pattern 2 by plating, etc., and then a protection film 8 is applied onto it using an adhesive 7. An excimer laser light A is emitted from a side of the metal mask 3 for forming a hole for continuity 10 and a separation groove 5A. When eliminating etching of the metal mask 3, conduction in the bottom part of the hole for continuity 10 cannot be lost due to presence of the metal

*transfection  
attached*

layer 6 and  
one edge is electrically joined to the circuit wiring pattern 2 and at  
the same  
time a pad for connection of circuit parts such as an IC which  
protrudes  
outside of an insulation base material 1 or a bump 11 can be formed at  
the  
other edge.

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